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AP - JP19950144406 19950612

CPY - MITV

DC - B04

FS - CPI

IC - C07B63/00 ; C07K1/18 ; C07K1/22

MC - B04-H19 B04-L01 B04-N04

M1 - [01] M423 M720 M903 N164 V752

M2 - [02] A220 A940 B115 B701 B713 B720 B815 B831 C101 C108 C550 C730 C802
C804 C805 C807 M411 M781 M903 M904; R03521-U

PA - (MITV) MITSUBISHI MATERIALS CORP

PN - JP8333387 A 19961217 DW199709 C07K1/18 004pp

PR - JP19950144406 19950612

XA - C1997-030580

XIC - C07B-063/00 ; C07K-001/18 ; C07K-001/22

AB - J08333387 Isolation and purificn. of protein by ion exchange absorption and sepn., in which a protein contg. soln. is contacted with hydroxyapatite treated with a metal salt or phosphate soln., to selectively absorb and separate acidic or basic protein.

- The hydroxyapatite prep'd. by baking at temps. of 1,000 deg.C or lower.

Hydroxyapatite is baked at temps. of at most 1,000 deg.C, pref.

800-1,000 deg.C and pulverised to 5-500 micron, particles. Then, the baked hydroxyapatite is contacted with a metal salt soln. (e.g. Ca, Mg, Na, K, Mn, Li, Ni, Cu, Zn, Fe and Ag, pref. Ca and Mg ions) at concns. of 2 mM or less, pref. 1-2 mM.

- ADVANTAGE - Selective and ion exchange absorption and sepn. of acidic or basic protein by simple method.

- In an example, hydroxyapatite particles having 50-150 micron sizes were baked at 900 deg.C and filled in a column of 0.9 cm diameter and 15 cm length. The column was equilibrated with 30 mM potassium phosphate buffer and a mixt. of albumin (BSA), fibrinogen, lysozyme and cytochrome having isoelectric point (p1) of 4.7, 5.6, 10.8 and 10.6, respectively, was poured. Then, the column was linear gradiently developed with 0.03-0.35M potassium phosphate buffer to selectively absorb lysozyme and cytochrome without absorbing albumin or fibrinogen.

- (Dwg.1/2)

CN - R03521-U

IW - ISOLATE PURIFICATION PROTEIN ION EXCHANGE ABSORB HYDROXY APATITE

IKW - ISOLATE PURIFICATION PROTEIN ION EXCHANGE ABSORB HYDROXY APATITE

NC - 001

OPD - 1995-06-12

ORD - 1996-12-17

PAW - (MITV) MITSUBISHI MATERIALS CORP

TI - Isolation and purificn. of protein - by ion exchange and absorption using hydroxy:apatite